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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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08/857,273

05/16/1997

PETER A. RONZANI

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01/28/2004

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EXAMINER

WU, XIAO MIN

ART UNIT

PAPER NUMBER

2674

DATE MAILED: 01/28/2004

53

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

08/857,273

Applicant(s)

RONZANI ET AL.

Examiner

XIAO M. WU

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 21,23-29,32-36,38-40,42-48,51-55,57-59,61,63,71-82 and 84-113 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21,23-29,32-36,38-40,42-48,51-55,57-59,61,63,71-82 and 84-113 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/8/2004 has been entered.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 21, 23-29, 32-36, 38-40, 42-48, 51-55, 57-59, 61, 63, 71-82, 84-85, 87-89, 91-93, 95-106, 108-113 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schoolman (U.S. Patent No. 5,281,957) in view of Ohnsorge (U.S. Patent No. 5,485,504), Spitzer (WO 93/18428) and Nathanson (U.S. Patent No. 4,010,322).

Schoolman discloses a portable communication device (or a telephone housing) comprising: a telephone housing (Fig. 4); a central processing unit (71, Fig. 10); a receiver (54) within the housing that receives image data; a liquid crystal display (44, 45); a display driver (3); a lens (33, 34) that enlarges an image displayed on the display for viewing by a user; and a display control (3).

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It is noted that Schoolman fails to disclose that a central processing mounted within the housing and a wireless transceiver within the telephone housing for transmitting and receiving audio and a wireless receiver within the telephone housing that receives image. Schoolman also fails to disclose the liquid crystal display having an active matrix circuit including an array transistors and an array of pixel electrodes such that the active matrix circuit is bonded to an optically transmissive substrate with an adhesive layer. It is also noted that Schoolman fails to disclose a battery carried by the telephone housing for powering the transceiver, the receiver, the display, the light source, and the circuit.

Ohnsorge is cited to teach a telephone device which comprises circuitry (CPU) and a wireless transceiver within the telephone housing for transmitting and receiving audio and a wireless receiver within the telephone housing that receives image data.

Spitzer is cited to teach an active matrix display with red, green and blue backlight sources for a head-mounted display system similar to applicant.

Nathanson is cited to teach a portable telecommunicator device which comprises a power supply (30) for powering the display, transceiver, receiver, light source and circuit within the housing.

It would have been obvious to one of ordinary skill in the art to have modified Schoolman with the features of combining a central processing unit and audio wireless transceiver and a wireless image data receiver within the same housing as taught by Ohnsorge, because the wireless device of Ohnsorge can provide a mobile communication to the user.

Also, it would have been obvious to one of ordinary skill in the art to have used an active matrix liquid crystal of Spitzer for the liquid crystal display of Schoolman because the active

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matrix liquid crystal display can provide sharper image than the regular liquid crystal display (e.g. passive type LCD).

Furthermore, it would have been obvious to one of ordinary skill in the art to use an internal power source within the housing as taught by Nathanson so as to provide a mobile function of the telephone unit.

With respect to the newly added claims 87-89, 91-93, 95-97, it would have been obvious to have used different kinds of sensors in the head-mounted display device of Schoolman as modified because they can provide work related data to the user.

With respect to newly added claims 110-111, Schoolman discloses that the display panel and the lens are housed with a display module attached to the housing.

With respect to the newly added claims 112-113, Schoolman as modified by Spitzer would provided the additional light within the housing for backlighting the LCD display panel.

4. Claims 86, 90, 94 and 107 are re rejected under 35 U.S.C. 103(a) as being unpatentable over Schoolman (U.S. Patent No. 5,281,957) in view of Ohnsorge (U.S. Patent No. 5,485,504), Spitzer (WO 93/18428) and Nathanson (U.S. Patent No. 4,010,322) as applied to claims 21-29, 31-36, 38-48, 50-55, 57-59, 61, 63, 71-82, 84-106 above, and further in view of Suzuki (EPA 0 551 781 A1).

It is noted that Schoolman, Ohnsorge, Spitzer and Nathanson do not disclose a servo for allowing adjustment of the position of the display relative to a user eyes. Suzuki is cited to teach a head mounted display device similar to Schoolman. Suzuki discloses a servo (\$, Fig. 1) for allowing adjustment of the position of the display relative to a user's eyes. It would have been obvious to one of ordinary skill in the art to have modified Schoolman as modified with the

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features of the servo as taught by Suzuki because Suzuki's head mounted display can be fitted into different users.

***Response to Arguments***

5. Applicant's arguments filed 1/8/2004 have been fully considered but they are not persuasive.

Applicant argues that neither Schoolman nor Suzuki is related to portable wireless communications devices. This argument is not persuasive because Ohnsorge is cited to teach a telephone device similar to Schoolman, which comprises circuitry (CPU) and a wireless transceiver within the telephone housing for transmitting and receiving audio and a wireless receiver within the telephone housing that receives image data. The combination of Schoolman and Ohnsorge would provide a portable wireless communication device.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiao Wu whose telephone number is (703) 305-4721.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (703) 305-4709.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

**(703) 872-9306**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377

xw

January 24, 2004



**XIAO WU**  
**PRIMARY EXAMINER**  
**ART UNIT 2674**